WHAT IS CLAIMED IS:

1. An optical waveguide including, on a substrate, a clad formed of a transparent material, and a core formed of a transparent material having a refractive index higher than a refractive index of the clad, said optical waveguide comprising at least:

a first optical waveguide;

a filter, a mirror structure, or a substrate end structure for reflecting light from said first optical waveguide; and

a second optical waveguide provided to receive reflected light from said first optical waveguide,

a typical value or an average value of a diameter, a width, or a thickness of the core of said second optical waveguide being adjusted to be substantially not less than twice and not more than twenty times as large as a typical value or an average value of a diameter, a width, or a thickness of the core of said first optical waveguide.

2. The optical waveguide of claim 1, wherein the reflected light from said first optical waveguide that has passed through said second optical waveguide is received by a light receiving device or a multi-mode fiber.

3. The optical waveguide of claim 2, wherein a filter for removing light having a wavelength other than a wavelength of the reflected light from said first optical waveguide is disposed between said second optical waveguide and said light

receiving device or said multi-mode fiber.

4. The optical waveguide of claim 2, wherein each of angles θ formed between respective optical axes of said first and second optical waveguides and a normal to said filter is adjusted to 25 degrees or less.

5. The optical waveguide of claim 2, wherein an angle ϕ formed between an optical axis of said second optical waveguide and a normal to an end of said substrate is adjusted to 5 degrees or more.

6. The optical waveguide of claim 4, wherein a filter for removing light having a wavelength other than a wavelength of the reflected light from said first optical waveguide is disposed between said second optical waveguide and the light receiving device or the multi-mode fiber.

7. The optical waveguide of claim 5, wherein a filter for removing light having a wavelength other than a wavelength of the reflected light from said first optical waveguide is disposed between said second optical waveguide and the light receiving device or the multi-mode fiber.

8. The optical waveguide of claim 4, wherein an angle ϕ formed between the optical axis of said second optical waveguide and a normal to an end of said substrate is adjusted to 5 degrees or more.

9. The optical waveguide of claim 8, wherein the reflected light from said first optical waveguide that has passed through

said second optical waveguide is received by the light receiving device or the multi-mode fiber.

10. The optical waveguide of claim 8, wherein said first optical waveguide is formed into a curved configuration.

11. The optical waveguide of claim 9, wherein said first optical waveguide is formed into a curved configuration.

12. The optical waveguide of claim 10, wherein a radius of curvature of said first optical waveguide is adjusted to 8 mm or less.

13. The optical waveguide of claim 11, wherein a radius of curvature of said first optical waveguide is adjusted to 8 mm or less.

14. The optical waveguide of claim 12, wherein a refractive index difference between the core and clad Δ of said first optical waveguide is adjusted to 0.6% or more.

15. The optical waveguide of claim 13, wherein a refractive index difference between the core and clad Δ of said first optical waveguide is adjusted to 0.6% or more.

16. The optical waveguide of claim 15, wherein said second optical waveguide is formed into a curved configuration.

17. The optical waveguide of claim 6, wherein said first optical waveguide is formed as a single-mode optical waveguide throughout an entire path thereof and said second optical waveguide is partly formed as a multi-mode optical waveguide.

18. The optical waveguide of claim 17, wherein the diameter,

width, or thickness of the core of said first or second optical waveguide is modulated with a tapered configuration, a stepped configuration, or other configurations in a path at a distance from an end opposing a position at which said filter or mirror structure is placed or the end structure.

19. An optical system capable of single-mode fiber communication, said optical system comprising the optical waveguide as recited in claim 6.

20. An optical system capable of multi-mode fiber communication, said optical system comprising the optical waveguide as recited in claim 6.